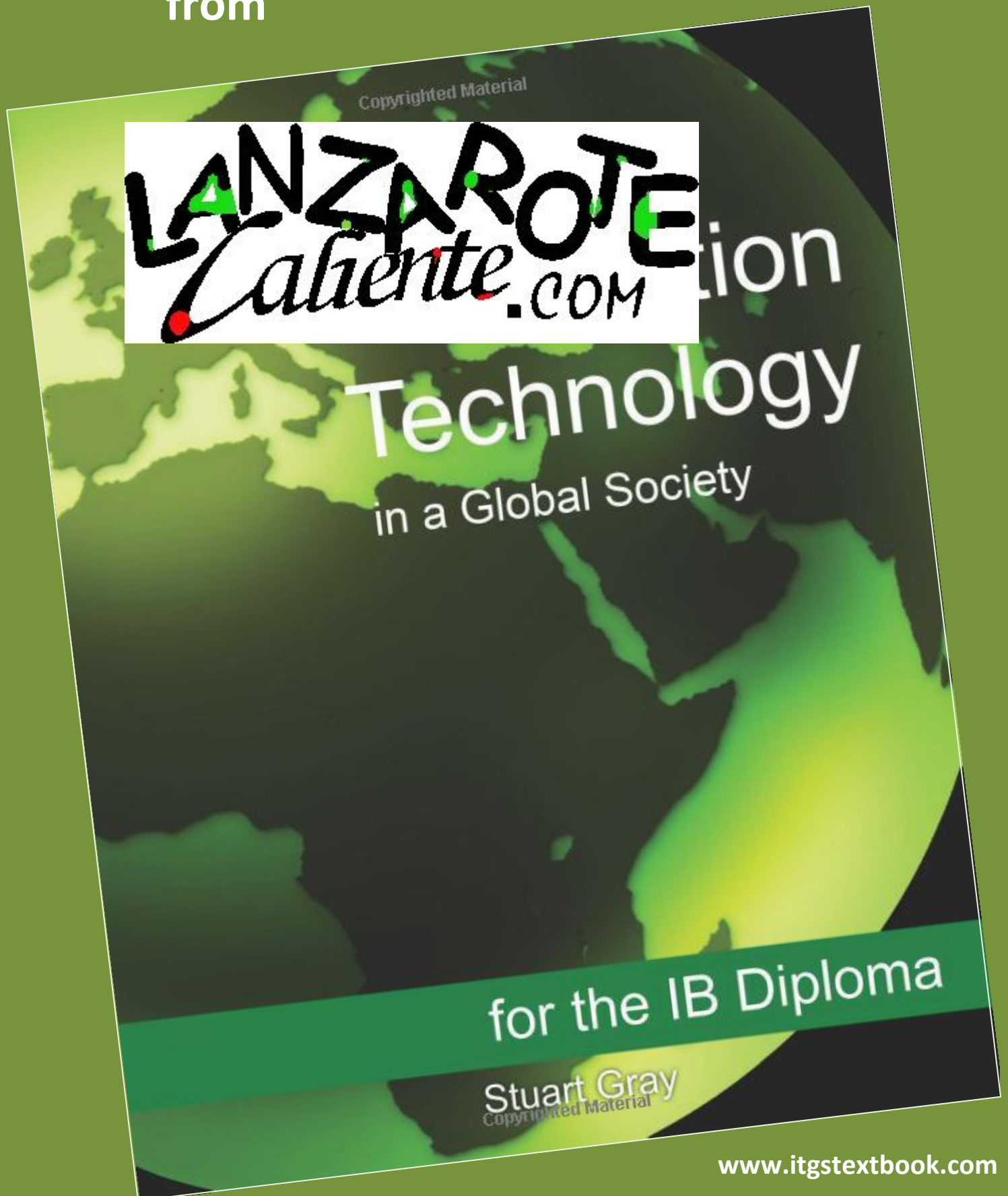


ITGS Glossary

VISIT...

from



This ITGS glossary belongs to

1-Hardware

1-1 Processing technologies



Clock speed	Speed of a processor, in ticks per second.	☐
Central Processing Unit	Hardware responsible for processing all instructions the computer runs.	☐
CPU	See Central Processing Unit.	☐
Data throughput	Rate at which data is processed and output by a system.	☐
Dual core	A multi-core system with two processor cores.	☐
GHz	See gigahertz.	☐
Gigahertz	Unit of measurement for a processor's clock speed. 1000 MHz.	☐
Hardware	Physical parts of a computer system.	☐
Megahertz	Unit of measurement for a processor's clock speed.	☐
MHz	See megahertz.	☐
Microprocessor	See Central Processing Unit.	☐
MIPS	See Millions of Instructions Per Second	☐
Motherboard	The circuit board to which the internal computer components connect: the CPU, the RAM, the ROM, and the secondary storage devices	☐
Multi-core	Processor with more than one processor core, to increase its performance.	☐
Multiprocessing	A system with more than one processor, to increase its performance.	☐
Multitasking	A single processor running multiple tasks by switching rapidly between them.	☐
Processor	See Central Processing Unit.	☐
Quad-core	A multi-core system with four processor cores.	☐
Software	The instructions and programs which are run by the CPU.	☐
Speed throttling	Reducing a processor's clock speed to save power when not in use.	☐
Terahertz	See Terahertz	☐
THz	Unit of measurement for a processor's clock speed. 1000 GHz.	☐

1-2 Input devices



Bar code scanners	Input device that uses a laser to read a bar code.	☐
Concept keyboard	Keyboard with keys that perform programmable, customised functions.	☐
Digital cameras	Camera that saves images digitally, often in JPEG format.	☐
Digital video cameras	Camera that saves digital video	☐
Digitize	To convert data from analog to digital form.	☐
Dvorak keyboards	Alternative keyboard layout to improve typing speed.	☐
Game controllers	Input device with buttons used for games playing.	☐
Joystick	Input device used for games playing and flight simulators.	☐
Keyboards	Input device that lets the user enter text and numeric data.	☐
Magnetic Ink Character Recognition	Input device that reads text written in special magnetic ink. Often used at the bottom of cheques.	☐
Magnetic stripe readers	Input device that reads the magnetic stripe on cards like ATM cards and bank cards.	☐
MICR	See Magnetic Ink Character Recognition	☐
Microphone	Input device for sound data	☐
Multi-touch	Input device able to recognise touches and gestures made with multiple fingers.	☐
Multimedia keyboard	Keyboard with buttons to perform common tasks such as program launching.	☐
OCR	See Optical Character Recognition.	☐
OMR	See Optical Mark Recognition.	☐
Optical Character Recognition	Input device that reads printed text, scans it, and converts it to text that can be edited in a word processor.	☐
Optical Mark Recognition	Input devices that reads simple multiple-choice style answers by looking for marks on the paper.	☐
Scanner	Input device used to digitise photographs and paper copies of data.	☐
Sensors	Input devices used to measure physical traits, such as sound, heat, or light.	☐
Smart card readers	Device to read a smart card.	☐
Soft keyboard	Keyboard which is displayed on screen and controlled by clicking on buttons with the mouse or a touch screen.	☐
Stylus	Input device used in conjunction with touch screens.	☐

Touch pad	Input device commonly found on laptops instead of a mouse.	☐
Touch screen	Input device that lets the user touch areas of the display to perform tasks.	☐
Trackball	Input device that uses a rotating ball to control the cursor.	☐
UPC	See Universal Product Code	☐
Universal Product Code	A type of barcode.	☐
Virtual keyboard	See soft keyboard	☐
Voice control	Use of spoken commands to control a computer.	☐
Voice recognition	Use of software to convert spoken words into text.	☐
Webcam	Input device used to record video, often found in laptop computers.	☐

1-3 Output devices



CRT monitor	Output device. Older type of monitor, now almost obsolete.	☐
Hard copy	A printed paper copy of data.	☐
Inkjet printer	Printer that works by spraying ink through nozzles at a sheet of paper.	☐
Interactive whiteboard	Device that uses a projector for output and touch inputs, using a special pen.	☐
Laser printer	High speed printer.	☐
LCD screen	Output device. The newer type of monitor which is flat.	☐
Native resolution	Resolution of an LCD display that produces the best display quality.	☐
Output	Information which is produced by a computer system.	☐
Pages per minute	Speed at which a printer produces output.	☐
Printers	Output device which produces paper copies.	☐
Projectors	Output device for displaying content on large screens.	☐
Speakers	Output device for sound.	☐

1-4 Storage



Bit	A single binary digit (a 1 or a 0). The smallest unit of storage inside a computer.	☐
BluRay	Optical secondary storage device capable of storing 16GB+.	☐
Byte	Storage unit: 8 bits. Enough to store a single ASCII text character.	☐
CD-ROM	Optical secondary storage device capable of holding 650-700MB of data.	☐
CompactFlash	Solid state storage device usually used in digital cameras.	☐
Data synchronisation	Exchanging data between a computer and a portable device such as a smart phone.	☐
Disk wiping	Securing deleting files from a disk, beyond recovery.	☐
DVD	Optical secondary storage device capable of storing up to 8GB.	☐
eSATA	A modern type of connector for attaching external hard disks	☐
EB	See Exabyte	☐
Exabyte	Storage unit: 1024 petabytes.	☐
External hard disk	Portable storage device often used for backups.	☐
Firewire	Interface for attaching external hard disks and digital video cameras.	☐
Flash memory/flash drive	See solid state storage.	☐
GB	See Gigabyte.	☐
Gigabyte	Storage unit: 1024 megabytes.	☐
Hard disk	Magnetic secondary storage device found in most desktop and laptop computers.	☐
IDE	Interface for attaching internal hard disks.	☐
Input	Data or information that is entered into the computer.	☐
KB	See kilobyte.	☐
Kilobyte	Storage unit: 1024 bytes	☐
Magnetic storage	Type of secondary storage that users magnets to read and store data. Examples include floppy disks and hard disks.	☐
MB	See megabyte.	☐
Megabyte	Storage unit: 1024 kilobytes	☐
MMC	Solid state secondary storage device, often used for digital cameras.	☐
Mouse	Input device used to control a cursor or pointer.	☐

Non-volatile storage	Storage which does not lose its contents when the power is removed.	☐
Optical storage	Storage devices which use lasers to store and read data. Examples include CDs and DVDs.	☐
PB	See petabyte.	☐
Petabyte	Storage unit: 1024 terabytes	☐
Primary storage	Storage systems which are found inside the computer and are electronic. RAM and ROM are examples.	☐
Redundant Array of Inexpensive Disks	System where multiple hard disks contain duplicate data, to be used in the event of one failing.	☐
Redundant system	System which will take over the role of a primary system if it fails.	☐
RAID	Redundant Array of Inexpensive Disks. A way of having two (or more) hard disks in a computer and having the exact same data written to each of them automatically. If one of the disks fails, the computer can switch to the other disk and continue running normally (since the second disk is an exact copy).	☐
ROM	See Read Only Memory.	☐
RAM	See Random Access Memory.	☐
Random Access Memory	Primary storage which is fast, relatively expensive, and volatile.	☐
Read Only Memory	Primary storage whose contents are written at manufacture and cannot be altered later.	☐
SATA	Interface for connecting storage devices like hard disks.	☐
Secondary storage	Storage systems which are connected externally to the computer's motherboard.	☐
Secure deletion	See disk wiping.	☐
Solid state storage	A type of secondary storage device that uses electronic circuits to read and store data. The advantage of this is that it has no moving parts, making it faster and less likely to be damaged if dropped. Also called flash memory. (Compare magnetic storage with optical storage and solid state storage)	☐
TB	See terabyte	☐
Terabyte	Storage unit: 1024 gigabytes	☐
Universal Serial Bus	Common interface for connecting peripheral devices including mice, printers, and digital cameras.	☐
USB	Common interface for connecting peripheral devices including mice, printers, and digital cameras.	☐
Volatile storage	Storage which loses its contents when the power is removed.	☐
YB	See Yottabyte.	☐
ZB	See Zettabyte	☐

Yottabyte	Storage unit: 1024 zettabytes	☐
Zettabyte	Storage unit: 1024 exabytes	☐

1-5 Miscellaneous



ASCII	See American Standard Code for Information Interchange.	☐
American Standard Code for Information Interchange	Encoding system to store text, where one byte is used for each character. Compare Unicode.	☐
Convergence	Idea that one device performs the same functions as many separate devices.	☐
Failover system	See Redundant system.	☐
Global Positioning System	System of satellites which can pinpoint a user's location on the Earth.	☐
GPS	See Global Positioning System	☐
RFID	See Radio Frequency Identification.	☐
Kensington lock	Special lock for securing portable devices to immovable objects to prevent theft.	☐
Plain text	Text file which contains no formatting data	☐
Radio Frequency Identification	System of tags which contain data that can be read from a distance using radio waves.	☐
Radio tag	Tags which broadcast their position over a large distance using radio waves.	☐
RFID reader	See Radio Frequency Identification.	☐
RFID tag	See Radio Frequency Identification.	☐
RTF	See Rich Text Format.	☐
Rich Text Format	Standard file format that can store documents that include formatting data.	☐
Unicode	Encoding system to store text, with support for multiple languages and alphabets, and thousands of characters. Compare ASCII.	☐
UPS	See Uninterruptible Power Supply.	☐
Uptime	Measure of how long a computer system has been operating without restarting.	☐
Uninterruptible Power Supply	Backup power system which powers a computer if the mains electricity fails.	☐
Voice over Internet Protocol	System that lets users make telephone calls over the Internet.	☐

VoIP	See Voice over Internet Protocol.	☐
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1-6 Types of computers



Desktop computer	Typical computer system with a separate screen and system unit.	☐
Embedded systems	Computer system hidden inside another device, such as a car engine management system.	☐
HTPC	Computer with multimedia capabilities designed specifically for watching television and films.	☐
Home Theatre PC	Computer with multimedia capabilities designed specifically for watching television and films.	☐
Laptop	Portable computers that come in many shapes and sizes.	☐
Mainframe	High end computer system that achieves very high data throughput.	☐
Netbook	Lightweight laptop computer designed for portability.	☐
PDA	See Personal Digital Assistant.	☐
Personal Digital Assistant	Mobile device bigger than a phone but smaller than a laptop. Probably has a keyboard or at least a stylus (pen) and a touch-screen.	☐
Smartphones	Mobile phone with capabilities including Internet access and a camera.	☐
Supercomputers	Fastest computers available, capable of performing trillions of calculations per second.	☐

1-7 Accessibility



Braille keyboard	Special keyboard designed for users with eyesight problems.	☐
Braille printer	Special printer that can produce Braille text.	☐
Eye tracking software	Accessibility software that tracks where a user is looking on the screen.	☐
Head control systems	Accessibility software that tracks a user's head movements to allow them to input data.	☐
Head wand	Accessibility hardware that lets a user input using a wand connected to their head.	☐
High contrast mode	Accessibility setting for users with eyesight problems.	☐
Input switches	Accessibility hardware that lets a user input data by pressing a simple on-off switch.	☐
Screen magnification	Accessibility setting for users with eyesight problems.	☐
Sip and puff	Accessibility hardware for users with very limited mobility	☐

Sticky keys	Accessibility setting for users with movement problems.	☐
Text-to-speech	Accessibility feature for users with eyesight problems, reads text from the computer out loud.	☐
Braille keyboard	Special keyboard designed for users with eyesight problems.	☐

1-8 Networking technologies ☒



Bluetooth	Short range, low bandwidth wireless technology often used for mobile phone headsets or earphones.	☐
IrDA	Short range, low bandwidth, line-of-sight wireless communication technology.	☐

Notes

This image shows a single sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

This image shows a full page of white paper with horizontal dotted lines. The lines are evenly spaced and run across the width of the page, providing a guide for handwriting practice. There are no margins, text, or other markings on the page.

2-Software

2 Software



Accounting software	Application software for managing finances.	☐
Application software	Software which allows users to produce work, such as documents and presentations.	☐
Application suite	Collection of application programs that perform related tasks, sold together.	☐
Assistant	See wizard.	☐
Audio software	Application software for creating, recording, and editing sound.	☐
Automatic recalculation	Spreadsheet feature that updates results when cells are changed.	☐
Backup	Spare copy of data to be used in the event of an emergency.	☐
Browser	Software used to view web pages.	☐
Business Software Alliance	Organisation that works to reduce illegal copying of software.	☐
Bug	Error or mistake in a program.	☐
Closed source	Software whose source code is not publicly available.	☐
Cloud computing	System whereby application software and data are stored on a remote Internet server.	☐
Command line interface	System the user controls by typing in commands.	☐
Commercial software	Software which is sold for profit.	☐
Compatibility	Idea that two systems work together and can share hardware, software, or data.	☐
Concurrent licence	Software licence that allows a specific number of copies to be used at one time.	☐
Copyright	Law protecting intellectual property from unauthorised copying.	☐
Cross-platform	Hardware or software that works on multiple operating systems.	☐
Database software	Application software for creating, recording, and finding large collections of data.	☐
Defragmentation	Process of reducing disk fragmentation.	☐
Desktop publishing software	Application software used to lay out pages for printed publications.	☐
Device drivers	Utility software used by the operating system to communicate with peripheral devices.	☐
DTP	See desktop publishing software.	☐
EULA	See end user licence agreement	☐
End user licence agreement	Licence agreement for software that sets out the users rights and responsibilities.	☐

Federation Against Software Theft	Organisation that works to reduce illegal copying of software.	☐
Firewall	Hardware or software that controls access to a network.	☐
Fragmentation	Problem that occurs as files are saved on non-contiguous sectors on a disk.	☐
Free and open source software	Software whose source code is freely available and can be changed and distributed.	☐
Freeware	Software which is distributed for no cost.	☐
Frequently asked questions	List of questions and answers often found in manuals and help screens.	☐
Full backup	Backup that copies all data from a system.	☐
Graphical User Interface	System the user controls using a mouse to click on icons, buttons, and windows.	☐
Graphics software	Application software for creating and editing images.	☐
GUI	See Graphical User Interface.	☐
Incremental backup	Backup that copies only the changed data since the last backup.	☐
Mail merge	Automatically customising a standard letter with individual names and addresses.	☐
MDI	See Menu Driven Interface	☐
Menu Driven Interface	Interface that presents a series of pre-defined options to the user.	☐
Multi-user licence	Software licence that allows a specific number of copies to be used at one time.	☐
Multimedia software	Application software for creating and editing presentations, animations, and video.	☐
Open source	See free and open source.	☐
Operating systems	Software that manages the computer system and controls the hardware.	☐
Platform	Refers to a particular combination of hardware and operating system.	☐
Presentation software	Application software for creating slides used for lectures, presentations, and lessons.	☐
Product activation	Process of registering software online before it can be used, to reduce illegal copies.	☐
Productivity software	See application software.	☐
Public domain	Software to which the author has waived all rights.	☐
Read me file	Help file containing latest updates and information about using a system.	☐
Restore (a backup)	Copying data from a backup copy back to the main system.	☐

Safety critical system	System whose failure could result in injury or loss of life.	☐
Serial number	Registration number needed during software installation, used to reduce illegal copies.	☐
Shareware	Software which is free to use initially, but which must be pay for if use continues.	☐
Single-user licence	Software licence that allows the use of only a single copy on a single computer.	☐
Site licence	Software licence that allows an organisation to use software on an unlimited number of computers.	☐
Source code	Instructions that make up the software, entered by the programmer using a programming language.	☐
Spreadsheet software	Application software for performing numerical calculations and analysis.	☐
Tutorials	Step by step help on using a system.	☐
User interface	Method used to communicate with a computer system.	☐
Utility software	Software used to perform maintenance jobs such as defragmenting disks.	☐
Video editing software	Application software for creating and editing video.	☐
Voice controlled interface	Ability to operate a computer by issuing spoken commands.	☐
Web development software	Application software for creating HTML pages for web sites.	☐
Web-based software	See cloud computing.	
Wizard	Step by step help system to guide a user through a task.	
Word processing software	Application software for creating written documents such as letters or essays.	

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3-Networks

3 Networks



3G	System to allow Internet access using mobile phone networks.	☐
4G	System to allow Internet access using mobile phone networks.	☐
Application server	Computer that stores application software for clients on a network.	☐
Asynchronous	Data transfer method in which the sender and receiver are not synchronised.	☐
Audit trails	Record of all changes and actions performed with a system, for security purposes.	☐
Authentication server	Computer that checks usernames and passwords when a user tries to log in.	☐
Authorised access	User who has permission to use a system.	☐
Backbone	High speed connections that connect main Internet sites.	☐
Bandwidth	Measure of a network's speed.	☐
Bits per second	Unit for measuring the speed of data transfer over a network connection.	☐
Blog	Web page where entries are stored chronologically, like a diary or journal.	☐
Bluetooth	Short range, low bandwidth wireless technology often used for mobile phone headsets or earphones.	☐
bps	Unit for measuring the speed of data transfer over a network connection.	☐
Cache	Storage area for frequently used information, to speed up access.	☐
Client computer	Computer on a network that uses services provided by a server.	☐
Client-server	Network system that uses servers to store data centrally and client computers to access them.	☐
Database server	Computer on a network that stores data for other users to access.	☐
DHCP	System that automatically assigns IP addresses to computers on a network.	☐
Dialup	Internet access that connects using a telephone line and a MODEM.	☐
DNS	System for translating domain names into IP addresses.	☐
Domain Name System	System for translating domain names into IP addresses.	☐
Domain names	Human readable names given to web sites, such as www.itgstextbook.com	☐
Download	To transfer data from a server to a client computer.	☐
DSL / cable	Common type of broadband Internet connection.	☐

Dynamic Host Control Protocol	System that automatically assigns IP addresses to computers on a network.	☐
Email server	Computer on a network that stores email for other users to access.	☐
Ethernet	Type of wired network connection commonly used on LANs.	☐
Fibre optic	Types of network connection that offers extremely high speed transfers.	☐
File server	Computer on a network that stores files for other users to access.	☐
File Transfer Protocol	System for transferring files over the Internet, often used for uploading web sites.	☐
Firewall	Software or hardware used to control data entering and leaving a network.	☐
FTP	System for transferring files over the Internet, often used for uploading web sites.	☐
Gateway	Computer which acts as a bridge between a local area network and the Internet.	☐
Gbps	Gigabits per second. Measure of network bandwidth.	☐
Hardware address	Unique address embedded in network connected devices.	☐
Home network	Small local computer network used in homes.	☐
Host	Computer on a network that provides services or performs work for others.	☐
HTTP	HyperText Transfer Protocol. The standard protocol of the world wide web.	☐
HTTPS	Secure version of HTTP which offers encrypted communication.	☐
Hub	Hardware device for connecting several computers on a network.	☐
Internet Protocol	Standard protocol used on many LANs and on the Internet. See TCP.	☐
Internet Service Provider	Company that provides Internet access to homes and businesses.	☐
IP address	Unique address assigned to every computer on a network.	☐
ISP	Company that provides Internet access to homes and businesses.	☐
Kbps	Kilobits per second. Measure of network bandwidth.	☐
LAN	Computer network in a small area such as an office building.	☐
Local Area Network	Computer network in a small area such as an office building.	☐
Log file	Chronological record of events, used for reporting purposes and audit trails.	☐
Login	Process of authenticating oneself before using a computer system.	☐

MAC address	Unique address embedded in network connected devices.	☐
MAN	Computer network over a large area such as a city.	☐
Mbps	Megabits per second. Measure of network bandwidth.	☐
Metropolitan Area Network.	Computer network over a large area such as a city.	☐
Microblog	Blog-like system which limited post length, such as Twitter.	☐
MODEM	Device for connecting a computer to a telephone line, used in dialup connections.	☐
Narrowband	Low speed network connection.	☐
Network administrator	Individual responsible for maintaining and running a network.	
P2P	Network in which all computers are equal and there are no centralised servers.	☐
PAN	Short range network between a computer and a mobile phone or similar portable device.	☐
Peer to peer	Network in which all computers are equal and there are no centralised servers.	☐
Personal Area Network	Short range network between a computer and a mobile phone or similar portable device.	☐
Personal firewall	Software application that controls network access to and from a single computer.	☐
Port	Number used to determine the type of service required when a computer connects to another.	☐
Print server	Computer on a network that receives and processes print requests.	☐
Protocols	A standard set of rules for performing tasks, such as communication.	☐
Proxy server	Computer on a network which acts on behalf of another, or through which all Internet data must pass.	☐
Push technology	System which notifies users of changes to web pages without them having to visit the page.	☐
Read / write web	Refers to web pages which allow user interaction and collaboration.	☐
Remote access	Ability to connect to a computer, over a network, as though you were physically present at the keyboard.	☐
Router	Hardware device used to connect two separate networks.	☐
RSS	Really Simple Syndicate. A push technology.	☐
SAN	Network dedicated to providing disk storage to other computers on the network.	☐
Server	Computer on a network that provides services or performs work for others.	☐
Social bookmarking	Web site that lets users store and manage their favourite links, and share them with others.	☐
Social network	Web site that lets users create personal profile pages and share them with friends.	☐

Storage Area Network	Network dedicated to providing disk storage to other computers on the network.	☐
Switch	Hardware device for connecting several computers on a network.	☐
Synchronous	Data transfer method in which the sender and receiver are synchronised, allowing higher speed transfer.	☐
Tagging	Adding key words to an item such as a photo to describe its content.	☐
TCP/IP	Transfer Control Protocol / Internet Protocol. Common protocol for LANs and the Internet.	☐
Thin client	Networking system whereby client computers rely on servers to perform their processing tasks.	☐
Top-level domain	Suffix at the end of a URL, such as .com or .org.	☐
Upload	To transfer data from a client to a server computer.	☐
URL	Universal Resource Locator. Describes the location of an item, such as a web page, on the Internet.	☐
Virtual LAN	Network form by several LANs which are in separate geographical locations.	☐
Virtual Private Network	Allows a secure private connection over a public network, using an encrypted 'tunnel'. For example, a remote computer can securely connect to a LAN, as though it were physically connected.	☐
VLAN	Network form by several LANs which are in separate geographical locations.	☐
VPN	Allows a secure private connection over a public network, using an encrypted 'tunnel'. For example, a remote computer can securely connect to a LAN, as though it were physically connected.	☐
WAN	Computer network over a large area, such as a country or several countries.	☐
Web 2.0	Refers to web pages which allow user interaction and collaboration.	☐
Web 3.0	Proposed evolution of the world wide web.	☐
Web server	Computer on a network that stores web pages.	☐
Wide Area Network	Computer network over a large area, such as a country or several countries.	☐
WiFi	Most common type of wireless connection.	☐
Wiki	Type of web page that any visitor can edit.	☐
WiMax	Long range wireless network technology.	☐
Wireless hotspot	The area around a WiFi router where wireless access is available.	☐
WLAN	Wireless LAN. A LAN what allows WiFi connections.	☐
WWW	World Wide Web – a series of interlinked multimedia pages stored on the Internet.	☐

Notes

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4-Security

4 Security



Access levels	Settings that determine who can access an item and what they can do with it (read, write, delete). Applies to files, folders and databases among other things.	☐
Anti-virus	Software to detect and remove viruses and other malware.	☐
Asymmetric key encryption	Encryption system in which two keys are used: a public key used only to encrypt data, and a private key used only to decrypt it.	☐
Authentication	Establishing a user's identity.	☐
Backdoor	Method of bypassing security in a system, built in by the system designers.	☐
Biometric enrolment	Process of registering a user for a biometric system by taking an initial sample.	☐
Biometric template	Measurements taken from a biometric sample.	☐
Biometrics	Use of fingerprints, retina scans, or other body features as an authentication mechanism.	☐
Botnet	Group of zombie computers under the control of a criminal.	☐
Brute force attack	Attempt to break a password by trying all possible combinations of letters, numbers, and symbols.	☐
CAPTCHA	"Scribble text" displayed as an image, which the user must type in to verify that they are a person.	☐
Certificate Authority	Organisation that issues digital certificates to individuals and companies.	☐
Ciphertext	Result of encrypting plaintext.	☐
Computer Misuse Act	UK law governing criminal offences committed using a computer.	☐
Cracking	Gaining illegal access to a computer system	☐
DDoS	Denial of service attack committed using dozens of computers, usually zombies on a botnet.	☐
Denial of service attack	Flooding a computer system with data so that it cannot respond to genuine users.	☐
Dictionary attack	Attempt to break a password by trying all possible words.	☐
Digital signatures	Technique used to authenticate remote users, such as online shopping businesses.	☐
Distributed Denial of Service attack	Denial of service attack committed using dozens of computers, usually zombies on a botnet.	☐
DNS poisoning	Technique used by criminals to alter DNS records and drive users to fake sites, to committing phishing.	☐
DoS	Flooding a computer system with data so that it cannot respond to genuine users.	☐
Drive-by download	Program which automatically downloads when a user visits a web page, usually without their knowledge or consent.	☐

Encryption	System of encoding plaintext so that it cannot be understood with access to an encryption key.	☐
Encryption key	Used to encrypt and decrypt data.	☐
EV SSL	Extended Validation SSL. Digital certificate validation technique used on the world wide web.	☐
False negative	When a system incorrectly rejects an action instead of accepting it.	☐
False positive	When a system incorrectly accepts an action instead of rejecting it.	☐
Full disk encryption	System that encrypts all data saved to a hard disk automatically and transparently.	☐
Hacking	Gaining illegal access to a computer system	☐
Home directory	Directory that contains a user's personal files.	☐
HTTPS	Protocol used to send web pages securely over the Internet.	☐
Identity theft	Stealing personal data in order to impersonate a person.	☐
Key escrow	Idea of having encryption keys stored by a third party company so the government can access them if needed.	☐
Key logger	Software or hardware which records all key strokes on a computer system.	☐
Key pair	A public key and private key that work together in a public encryption system.	☐
Macro virus	Virus that takes advantage of the macro programming languages built into some software.	☐
Malware	Generic name for malicious software	☐
Multi-factor authentication	Use of several authentication techniques together, such as passwords and security tokens.	☐
One time password	Password generated by a security token, which expires as soon as it is used.	☐
Packet sniffer	Software or hardware used to collect data travelling over a network.	☐
Passphrase	Word or phrase used to authenticate a user.	☐
Password	Word or phrase used to authenticate a user.	☐
Pharming	Technique used by criminals to alter DNS records and drive users to fake sites, to committing phishing.	☐
Phishing	Use of fake emails and web sites to trick users into revealing sensitive data.	☐
Physical security	Locks, alarms, and other techniques used to securely a building or computer room.	☐
Plaintext	Message before it is encrypted, or after it has been decrypted.	☐
Private key	Key used for decryption in a public key encryption system.	☐
Public key	Key used for encryption in a public key encryption system.	☐

Public key encryption	Encryption system in which two keys are used: a public key used only to encrypt data, and a private key used only to decrypt it.	☐
Root user	User will full control over a computer system.	☐
Rootkit	Type of malware which infiltrates the operating system and attempts to hide itself from view.	☐
Secret key encryption	Encryption system in which a single key is used for both encryption and decryption.	☐
Secure Socket Layer	System used to encrypt https web traffic.	☐
Security token	Hardware device that must be present during login to authenticate a user.	☐
Security update	Software update to fix a security problem discovered in software.	☐
Smishing	Phishing attacks committed using text messages (SMS).	☐
Social engineering	Tricking a user into revealing their password or other sensitive data.	☐
Spam	Unwanted, bulk email.	☐
Spam bot	Program that scans web pages for email address, in order to send spam.	☐
Spam filters	Program designed to identify and block spam messages while letting genuine messages through.	☐
Spyware	Malware which covertly records a user's actions, such as their key presses.	☐
SSL	System used to encrypt https web traffic.	☐
Symmetric key encryption	Encryption system in which a single key is used for both encryption and decryption.	☐
System administrator	Personal in overall charge of a computer system in an organisation.	☐
TLS	System used to encrypt https web traffic.	☐
Transport Layer Security	System used to encrypt https web traffic.	☐
Trojan horse	Malware which pretends to be a genuinely useful program to trick the user into using it.	☐
Unauthorised access	Gaining illegal access to a computer system	☐
Virus	Computer program which damages files and data spreads when infected programs are copied.	☐
Virus definition file	Used by anti-virus programs to recognise known viruses.	☐
Vishing	Phishing attacks committed using telephone calls or VoIP systems.	☐
Vulnerability scanner	Software to scan a system for potential security problems.	☐
Web bug	Technique used by spammers to detect if an email address is valid or not.	☐
WEP	Wired Equivalence Protocol. Wireless network encryption system.	☐

Worm	Malicious software which replicates itself and spreads between computer systems and over networks.	☐
WPA	Wireless Protected Access. Wireless network encryption system.	☐
WPA2	Wireless Protected Access 2. Wireless network encryption system.	☐
zombie	Computer which has been compromised by malware and is part of a botnet.	☐

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This image shows a full page of white paper with horizontal dashed lines, typical of primary school writing paper. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

5-Multimedia

5 Multimedia



AAC	Lossy file format for audio.	☐
Alignment	Tools to control placement of objects in presentation or DTP software.	☐
AVI	Lossy file format for video.	☐
Bit depth	Refers to the number of colours in an image.	☐
Bit rate	Amount of data used to represent a single sample in a video or audio file.	☐
Bitmap graphics	Graphics composed of rectangular grids of pixels.	☐
Blue screen	Technique used to replace part of a video image matching a certain colour with computer graphics.	☐
BMP	Lossless file format for audio.	☐
Buffer	Temporary storage area used to store video or audio data ready for playing.	☐
CAD	Technical graphics software used to design products for manufacture.	☐
CGI	Graphics created entirely on a computer, using 2D or 3D graphics software.	☐
Citation	Acknowledge to a piece of work used as a source.	☐
Cloning	Graphics technique which copies one part of an image to another, often to remove something from the image.	☐
Colour balance	Graphics filtering for altering the tones and intensities of colours in an image.	☐
Colour depth	Refers to the number of colours in an image.	☐
Colour levels	Graphics filtering for altering the tones and intensities of colours in an image.	☐
Colour management	Ensuring printed output colours accurately match those on the screen.	☐
Colour profile	Used as part of colour synchronisation to specify how a device represents colour.	☐
Colour synchronisation	Ensuring printed output colours accurately match those on the screen.	☐
Composite image	Image which was created from several separate images.	☐
Compression	Reduction in the amount of data used to store a file.	☐
Computer Aided Design	Technical graphics software used to design products for manufacture.	☐
Computer Generated Imagery	Graphics created entirely on a computer, using 2D or 3D graphics software.	☐
Copyright	Legal concept which protects intellectual property from authorised copying, alteration, or use.	☐

Creative Commons	Licensing system for authors who wish to distribute their work freely.	☐
Cropping	Taking a small part (subset) of an image.	☐
Desktop publishing software	Software used for laying out text and images on pages. Commonly used for books, magazines, and brochures.	☐
Digital effects	General name for operations performed on an image using graphics software.	☐
Digital Rights Management	Software which restricts the actions a user can perform with a file, such as copying or printing.	☐
Digitisation	The process of converting analog data into digital computer data.	☐
DOC	File format for documents, used by Microsoft Office.	☐
Dots per inch	Also known as printer resolution. The number of dots of colour a printer is capable of producing in a certain amount of space.	☐
DPI	Also known as printer resolution. The number of dots of colour a printer is capable of producing in a certain amount of space.	☐
DRM	Software which restricts the actions a user can perform with a file, such as copying or printing.	☐
DTP	Software used for laying out text and images on pages. Commonly used for books, magazines, and brochures.	☐
Fair use	Exceptions to copyright law that allow copying in certain limited circumstances.	☐
Filters	General name for operations performed on an image using graphics software.	☐
FLAC	Lossless file format for audio.	☐
Flipping	Image effect found in most graphics software.	☐
Footer	Area of a document which appears the same on every page.	☐
GIF	Lossless file format for images.	☐
GNU Free Documentation License	Licensing system for authors who wish to distribute their work freely.	☐
Green screen	Technique used to replace part of a video image matching a certain colour with computer graphics.	☐
Header	Area of a document which appears the same on every page.	☐
Image editor	Software used to create or edit bitmap graphics.	☐
Intellectual property	Refers to creations of the mind – non-physical property such as photographs, music, stories, and films.	☐
JPG	Lossy file format for images.	☐
Layer	Technique used in graphics software to place digital images or effects on top of each other to build up a final image.	☐
Lossless compression	Compression technique in which the original file is completely recoverable, with no loss of quality. Compare lossy	☐

	compression.	
Lossy compression	Compression technique in which some file data is sacrificed in order to reduce file size.	☐
Master page	A template page which is used to include standard features (such as page numbers or a header) on each page of a document in a consistent manner.	☐
Megapixel	Unit used to measure the resolution of digital cameras. Refers to 1 million pixels.	☐
MIDI	Musical Instrument Digital Interface. System for communication between musical hardware and software applications.	☐
Morphing	Effect that transforms one image into another over a series of frames.	☐
Motion capture	A system used to capture human movement into a computer by attaching sensors to an actor and tracking their location.	☐
MOV	Lossy file format for video.	☐
MP3	Lossy file format for audio.	☐
MP4	Lossy file format for video.	☐
MPEG	Lossy file format for video.	☐
Object oriented graphics	Graphics which are stored as a series of mathematical shapes and properties that can be independently manipulated at any time.	☐
ODT	File format for documents, used by LibreOffice.	☐
PDF	Common file format for the exchange of documents, which appears on screen exactly as it will appear on the printer.	☐
Pixel	Individual dots which make up bitmap graphics.	☐
Pixels per inch	Number of pixels displayed in each inch of screen output.	☐
Plain text file	File format that stores characters using ASCII or Unicode encoding.	☐
PNG	Lossless file format for images.	☐
Portable Document Format	Common file format for the exchange of documents, which appears on screen exactly as it will appear on the printer.	☐
PPI	Number of pixels displayed in each inch of screen output.	☐
Raster graphics	Graphics composed of rectangular grids of pixels.	☐
Resolution	Refers to the number of pixels in an image.	☐
Rich Text Format	File format for documents, which can store text and some basic formatting information.	☐
Rotating	Image effect found in most graphics software.	☐
RTF	File format for documents, which can store text and some basic formatting information.	☐
Sample rate	Number of samples taken each second when recording sound.	☐

Scaling	Changing the size of an image.	☐
Selection tools	Tools in graphics software for selecting only a subset of an image.	☐
Streaming media	Video or audio data that is played while it is downloading.	☐
SVG	Standard file format for vector image data.	☐
Template	A page which is used to include standard features (such as page numbers or a header) on each page of a document in a consistent manner.	☐
Text file	File format that stores characters using ASCII or Unicode encoding.	☐
TIF	Lossless file format for images.	☐
True colour	Image with 24 bit colour depth.	☐
TXT	File format that stores characters using ASCII or Unicode encoding.	☐
Typography	The proficient use of fonts, font sizes, and font properties such as leading and kerning to display text in an appropriate manner.	☐
Vector graphics	Graphics which are stored as a series of mathematical shapes and properties that can be independently manipulated at any time.	☐
Video CODECs (coder-decoders)	Software required to view certain compressed video and audio formats.	☐
Virtual actors	Animated characters used in films, created entirely using computer graphics software.	☐
Vorbis	Lossy file format for audio.	☐
Watermarking	The process of adding an author name or logo into an image to identify its owner and prevent intellectual property theft.	☐
WAV	Lossless file format for audio.	☐
WMA	Lossy file format for video.	☐
WYSIWYG	What You See Is What You Get. Refers to programs that present their output onscreen exactly as it will appear when printed.	☐
Zip file	Compressed file format for general data.	☐

Notes

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6-Databases

6 Databases



Alternative key	Field by which a database is often searched.	☐
Auditing	Recording database transactions made by users (e.g. all edits, reads) for security purposes.	☐
Boolean operators	AND, OR, and NOT operators used in a query.	☐
Character check	Ensuring a field contains only the specified character types.	☐
Check digit	Way of checking mathematically if an item of data has been correctly entered.	☐
Comma Separated Values	File format for transferring data, which stores fields and records in a plain text file, separated by commas. See also TSV (Tab Separated Values).	☐
Composite key	Primary key which consists of more than one field.	☐
Computer matching	Combining several databases to build up more information about a person or set of people.	☐
Consistency check	Validation check in which two fields' values are mutually dependent.	☐
CSV	File format for transferring data, which stores fields and records in a plain text file, separated by commas. See also TSV (Tab Separated Values).	☐
Data entry form	Screen used to input data into a database.	☐
Data integrity	Ensuring data is correct, consistent, and update to date.	☐
Data matching	Combining several databases to build up more information about a person or set of people.	☐
Data mining	Searching collections of data for hidden patterns.	☐
Data Protection Act	UK law that governs the collection and use of personal data.	☐
Data redundancy	Data in a database which is needlessly duplicated.	☐
Data types	Format of data in a field, such as text, number, or date.	☐
Data warehouses	Vast databases containing many gigabytes of data.	☐
Database Management System	Software used to create, enter, edit, and retrieve data in a database.	☐
DBMS	Software used to create, enter, edit, and retrieve data in a database.	☐
Field	Single item of data about a single record in a database.	☐
Field size	Validation technique. Number of characters that can be stored in a field.	☐
Flat file database	Database which consists of just one table.	☐
Foreign key	Database field whose sole purpose is to form part of a relationship with another table.	☐

Forms	Screen used to input data into a database.	☐
Index	Field by which a database is often searched.	☐
Input mask	Validation technique. Ensures only the specified characters can be entered into a field.	☐
Key field	Field which contains a different value for every record in that table.	☐
Knowledge discovery	Searching collections of data for hidden patterns.	☐
Length check	Validation technique. Number of characters that can be stored in a field.	☐
Lookup	Using a list of values to limit what can be entered into a field. For example, for the 'Gender' field, the values are limited to 'male' and 'female'	☐
Normalization	Process of converting a database from a flat file database to a relational database.	☐
Online encyclopaedias	Web site containing a large number of articles for research purposes.	☐
Opt-in	System in which users must explicitly decide to participate.	☐
Opt-out	System in which users must explicitly decide not to participate.	☐
Parameter query	Database query whose criteria are decided by the user at run-time.	☐
Personal data	Data which could identify a user, or lead to social impacts such as identity theft.	☐
Personally identifiable data	Data which could identify a user, or lead to social impacts such as identity theft.	☐
Presence check	Validation technique. Requires a field to be completed.	☐
Primary key	Field which contains a different value for every record in that table.	☐
Privacy policy	Policy governing what data a company or web site will collect about you and how it will be used.	☐
Queries	Method of extracting data from a database that matches specific criteria	☐
Range check	Validation technique. Ensures a field is between a certain range of values.	☐
RDBMS	Relational DBMS. See Database Management System.	☐
Record	Collection of fields that represent a single entity, such as a person.	☐
Redundancy	Data in a database which is needlessly duplicated.	☐
Redundant data	Data in a database which is needlessly duplicated.	☐
Relational database	Database containing multiple related tables and no redundant data.	☐
Searching	Method of extracting data from a database that matches specific criteria	☐
Secondary key	Field by which a database is often searched.	☐

Secondary use	Using data for a purpose other than the one for which it was collected.	☐
Sensitive data	Data such as medical records which, if shared, could cause serious negative impacts on the data subject.	☐
Sorting	Ordering records based on a field (e.g. alphabetically).	☐
SQL	Language for managing databases by typing commands.	☐
Structured Query Language	Language for managing databases by typing commands.	☐
Tab Separated Values	File format for transferring data, which stores fields and records in a plain text file, with fields separated by a tab character. See also CSV.	☐
Tab-delimited text files	File format for transferring data, which stores fields and records in a plain text file, with fields separated by a tab character. See also CSV.	☐
Table	In databases, a collection of records representing a type of item.	☐
Trans-border data flow	Transfer of data between countries.	☐
TSV	File format for transferring data, which stores fields and records in a plain text file, with fields separated by a tab character. See also CSV.	☐
Validation	Checks to ensure whether data is in the correct format.	☐
Verification	Checking whether data is correct – i.e. is the value entered in a field the actual value?	☐
Web databases		☐

Notes

7-Models & Simulations

7 Models and simulations



Absolute cell reference	In a spreadsheet, a cell reference which does not change when moved.	☐
Assumptions	Often made during the construction of a computer model, as part of the simplification process.	☐
Car crash model	Used to predict the results of car crashes.	☐
Cell format	In spreadsheets, the properties of a cell such as its colour, font, and cell type.	☐
Cell range	In spreadsheets, reference to a range of continuous cells.	☐
Cell reference	In spreadsheets, a combination of row number and column letter to refer to a single cell (e.g. A2).	☐
Centralized processing	Single computer with multiple processors working on a task.	☐
CFD	Computational Fluid Dynamics. A technique used to model airflow in computer models.	☐
Climate model	Computer model used to predict possible future climate change.	☐
Computer model	Mathematical representation of the real world using computer software.	☐
Computer simulation	Based on computer models, gives users experience of events such as flying a plane.	☐
Decision Support System	Use of models or expert systems to aid (business) decision making processes.	☐
Distributed processing	Use of multiple separate computers working together on a common task.	☐
Feedback loop	Comparing the results of a computer model to actual (real life) results, and using the differences to improve the model for the future.	☐
Flight simulator	Simulator hardware and software used to train pilots.	☐
Formula	In spreadsheets, a combination of cell references and mathematical operations.	☐
Full motion platform	Hardware device which can move in many directions to increase the realism of simulators.	☐
Function	Built in features of spreadsheets for performing common calculations.	☐
Global Climate Model	Computer model used to predict possible future climate change.	☐
Goal seek	Spreadsheet tool used to determine the required values to meet a certain goal.	☐
Grid computing	Use of multiple separate computers working together on a common task.	☐
High performance computing	High speed computing using multiple processors	☐
Parallel processing	High speed computing using multiple processors	☐

Prediction	Output of a computer model.	☐
Relative cell reference	In a spreadsheet, a cell reference which updates when moved.	☐
Simplification	Difference between a computer model's representation of a process, and the real life process.	☐
Spreadsheet	Application software for performing numerical calculations and analysis.	☐
Supercomputer	Fastest computers available, capable of performing trillions of calculations per second.	☐
Variables	Components of a computer model which can be altered to vary the output.	☐
Visualisation	Graphical or animated output from a computer model or simulation.	☐
What-if scenario	Use of a computer model to test the results of different situations and scenarios.	☐

Notes

This image shows a single sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

This image shows a full page of a document template. It consists of approximately 28 evenly spaced horizontal dotted lines across the entire width of the page, providing a guide for handwriting or typing. There are no margins, text, or other markings present.

8-Business (traditional)

8 Business (traditional)



Acceptable use policy	Policy that sets out what users are and are not allowed to do with IT systems.	☐
Chip and pin	Systems designed to reduce credit card fraud by requiring the user to authenticate themselves at the point of sale.	☐
Collaborative software	Application software to let users work together on projects even if they are geographically remote.	☐
Deskilling	Reduction in the skill needed to do a job, due to technology	☐
EFT	Transfer of money from one account to another using computer systems and networks.	☐
Electronic Funds Transfer	Transfer of money from one account to another using computer systems and networks.	☐
Email monitoring	Technology to monitor emails sent and received, usually by employees.	☐
Employee monitoring	Technology used to monitor the work of employees using a computer system.	☐
Extranet	Content on a LAN which is available to authorised third parties.	☐
Filtering	Process of preventing access to some resources, usually web pages.	☐
Follow-the-sun working	System of moving working to different offices around the globe as the day progresses, ending work in each location as the end of the day approaches, and moving it to a new office elsewhere where the day is just beginning.	☐
Internet monitoring	Technology to monitor Internet data sent and received, usually by employees.	☐
Intranet	Content on a LAN which is only available to members of an organisation.	☐
Key logger	Software or hardware which records all key strokes on a computer system.	☐
Keystroke monitoring	Software or hardware which records all key strokes on a computer system.	☐
Loyalty card	Card used to identify repeat customers, to allow them to accumulate reward points, and to gather data about their shopping habits for marketing purposes	☐
Macro	In application software, a set of actions which are recorded so they can be played back later.	☐
Macro viruses	Virus that takes advantage of the macro programming languages built into some software.	☐
Mail merge	The process of automatically customising a standard letter with individual names and addresses from a database.	☐
Online banking	Use of the Internet to perform tasks such as bill payment, money transfers and other banking tasks.	☐
Point of Sale	Checkout system in a shop, usually connected to a store database and EFT system.	☐
POS	Checkout system in a shop, usually connected to a store database and EFT system.	☐

Re-skilling	When a de-skilled user retrain, often in a technology related discipline.	☐
Remote desktop	Ability to connect to a computer, over a network, as though you were physically present at the keyboard.	☐
Reward card	Card used to identify repeat customers, to allow them to accumulate reward points, and to gather data about their shopping habits for marketing purposes	☐
RFID	System of tags which contain data that can be read from a distance using radio waves.	☐
Self checkout	Supermarket technology that lets users scan and pay for their own goods without staff assistance.	☐
Smart shopping trolley	Shopping trolley with RFID technology to offer enhanced functionality.	☐
Targeted advertising	Use of data about customers to determine which adverts they are most likely to find useful.	☐
Telecommuting	Working away from an organisation's main office or base, using portable computers.	☐
Teleworking	Working away from an organisation's main office or base, using portable computers.	☐

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9-Business (on line)



Absolute link	HTML link to a fully specified URL.	☐
Active Server Pages	Technology used to create dynamic web pages, designed by Microsoft.	☐
Active Server Pages Extended	Technology used to create dynamic web pages, designed by Microsoft.	☐
Ad blockers	Software to block adverts in web pages.	☐
ALT attribute	HTML attribute that provides a text description of images.	☐
Anchor	HTML link which points to a different part of the same page.	☐
Apache	Well known web server software.	☐
Applet	Java program which runs inside a web page.	☐
ASP	Technology used to create dynamic web pages, designed by Microsoft.	☐
ASPX	Technology used to create dynamic web pages, designed by Microsoft.	☐
B2B	E-commerce conducted between two businesses, such as a business and their suppliers.	☐
B2C	E-commerce conducted between a business and their customers, for example, online shopping.	☐
Back-end	Database which stores web site content 'behind the scenes'.	☐
Banner ads	Graphical adverts that are typically displayed across the top of a web page.	☐
Bounce rate	Percentage of users who visit a web site but immediately leave it.	☐
Breadcrumb trails	Feature of a web site to help user navigation by showing the current page name and the names of pages which led to it, in order.	☐
Browser compatibility	An essential check to ensure that a web page appears the same way on all web browsers.	☐
Bulk email	Email sent to large numbers of users at once. May be considered spam by some users.	☐
Business-to-Business	E-commerce conducted between two businesses, such as a business and their suppliers.	☐
Business-to-Consumer	E-commerce conducted between a business and their customers, for example, online shopping.	☐
C2C	E-commerce where customers deal directly with each other, such as in online auction.	☐
Cascading Style Sheets	Technology to specify styling and formatting information for web pages.	☐
Click Through Rate	Percentage of users who click on an advert after seeing it.	☐
Consumer-to-Consumer	E-commerce where customers deal directly with each other, such as in online auction.	☐

Conversion rate	Percentage of visitors who visit a site and then make a purchase.	☐
Cookies	Small text file text by some web sites to recognise the user when they return.	☐
Cost Per Click	Amount paid to the advertising company when a user clicks on an advert.	☐
CPC	Amount paid to the advertising company when a user clicks on an advert.	☐
CSS	Technology to specify styling and formatting information for web pages.	☐
CTR	Percentage of users who click on an advert after seeing it.	☐
Data mining	Searching collections of data for hidden patterns.	☐
Data-driven web sites	A web site whose pages are generated at view-time, from data stored in a database. For example, when a user performs a search in a shop, all matching products are extracted from the database and a web page is generated to display them.	☐
Digital certificates	Technique used to authenticate remote users, such as online shopping businesses.	☐
Direct payment	E-commerce payment using a debit or credit card.	☐
Do not track	Initiative designed to stop tracking cookies from recording user's web activity.	☐
Domain name	Human readable names given to web sites, such as www.itgstextbook.com	☐
Domain Name System	System for translating domain names into IP addresses.	☐
Dynamic web site	A web site whose pages are generated at view-time, from data stored in a database. For example, when a user performs a search in a shop, all matching products are extracted from the database and a web page is generated to display them.	☐
E-commerce	The techniques used to sell products online.	☐
E-marketing	The techniques used to market produces online.	☐
E-store	A name for a web page which lets the user browse and purchase items.	☐
Electronic shopping cart	Feature of e-commerce sites which contains items for later purchase.	☐
Enterprise information system	System that allows an organisation to collect, manage, and analyse large amounts of information about its products, its processes, and its customers.	☐
External link	HTML link which points to a separate, external web site.	☐
File Transfer Protocol	System for transferring files over the Internet, often used for uploading web sites.	☐
Filtering	Software which blocks some Internet content, based on a series of rules or lists of content.	☐
First party cookie	Cookie left by a web site the user directly visited.	☐

Flash	Technology often used to create interactive web pages.	☐
HTML	HyperText Markup Language. The standard language for creating web pages.	☐
HTTPS	Protocol used to send web pages securely over the Internet.	☐
Hyperlinks	Area of a web page – text or an image – which when clicked takes the user to another web page.	☐
Internal link	HTML link which points to a different part of the same page.	☐
Internet Service Provider	Company that provides Internet access to homes and businesses.	☐
ISP	Company that provides Internet access to homes and businesses.	☐
Java	Programming language often used to create interactive web pages.	☐
JavaScript	Scripting language often used to create interactive web pages.	☐
Keyword density	Frequently with which key words appear in a web page.	☐
Keyword prominence	Locations within a web page that key words appear.	☐
Keyword spamming	Overuse of key words in a web page in an attempt to increase search engine ranking.	☐
Link farm	Service that links many pages to each other in an attempt to increase search engine ranking.	☐
Location based service	Web page which alters the information it displays based on the user's geographical location.	☐
M-commerce	The use of mobile phones to conduct online purchases.	☐
Meta tags	HTML tags to add additional information about a web page and its content.	☐
Mobile commerce	The use of mobile phones to conduct online purchases.	☐
MySQL	Database system often used by data driven web sites.	☐
Newsletter		☐
Online advertising		☐
Online reputation	Methods used to measure the “trust” and “reliability” of people in an online network, especially when performing e-commerce or writing reviews.	☐
Payment gateway	A trusted third party who is used to receive and process payments in an online transaction.	☐
PHP	Technology used to create dynamic web pages.	☐
Plugins	Software added to web browsers to extend their functionality.	☐
Pop-ups	A type of advertisement which opens a new browser window to display adverts.	☐
Ranking of sites	Process performed by search engines to determine the order of results for a given search.	☐

Referrer	A small piece of information sent to sites you visit, telling the site which site you just came from.	☐
Relative link	HTML link to a file, with no path specified.	☐
Screen reader	Accessibility feature for users with eyesight problems, which reads text aloud.	☐
Scripting	Simple programming that can be included in web pages to make them more interactive or dynamic.	☐
Search Engine Optimisation	Techniques used to increase a web page's search engine rankings.	☐
Secure online payment	Essential for all online transactions, often achieved using SSL or TLS encryption.	☐
SEO	Techniques used to increase a web page's search engine rankings.	☐
Silverlight	Technology often used to create interactive web pages.	☐
Sitemap	Overview of a web site and all the links and pages within it.	☐
Social media	Networks such as Facebook, Google, and Twitter, which are often used for advertising.	☐
Spam	Unwanted, bulk email.	☐
Sponsored links	Links show by search engines because the link owners paid a fee.	☐
SQL	Language for managing databases by typing commands.	☐
Styles		☐
Stylesheet	File which contains CSS information to format a web page.	☐
Tags (HTML)	Keywords in HTML which are used to mark up a web page.	☐
Targeted advertising	The use of data about an individual to determine the types of advertising which is most likely to interest them.	☐
Third party cookie	Cookie left by a web site the user did not directly visit (usually by advert companies).	☐
Third party hosting	Use of a separate, specialist company to store and manage a web site.	☐
Third party payment service	See payment gateway.	☐
Title attribute	HTML attribute that provides a text description of links.	☐
Top Level Domain	The final part of a domain name, such as .com .net or .sv	☐
Tracking number	A number given to users when they order an item online, allowing them to see its progress from the retailer to their door.	☐
Unique identification number	Used by cookies to help recognise return visitors to web sites.	☐
Uploading	To transfer data from a client to a server computer.	☐

Uptime	Measure of how long a computer system has been operating without restarting.	☐
Viral advertising	Advertising on social media networks which spreads rapidly from user to user.	☐
Virtual world	3D environment in which character select an avatar and then explore. Sometimes used by companies for marketing purposes.	☐
W3C	Organisation that manages standards on the world wide web.	☐
Web analytics	Software to measure and display statistics about a web site's visitors, such as pages visited, durations of visits, and web browsers used.	☐
Web Content Management System	Software which allows management of a web site without web design skills. Content is stored in a database and published in different ways, such as on a web site, in a printed booklet, or in different languages. Sometimes called a WebCMS.	☐
Web crawler	Software which scans web pages looking for key words, so search engines can index them.	☐
Web hosting	The process of housing or storing a web site, making it available to the public, and managing the servers on which it runs.	☐
Web server	Computer which houses web pages and serves them to computers that request them.	☐
Web spider	Software which scans web pages looking for key words, so search engines can index them.	☐
Web traffic analysis	Software to measure and display statistics about a web site's visitors, such as pages visited, durations of visits, and web browsers used.	☐
WebCMS	Software which allows management of a web site without web design skills. Content is stored in a database and published in different ways, such as on a web site, in a printed booklet, or in different languages. Sometimes called a WebCMS.	☐
World Wide Web Consortium	Organisation that manages standards on the world wide web.	☐
WYSIWYG	What You See Is What You Get. Refers to programs that present their output onscreen exactly as it will appear when printed.	☐
XML	A markup language used to describe data, storing the information as plain text files.	☐

Notes

10-Business (transportation)

10 Business (transportation)



Fleet management	Software to track and manage fleets of vehicles, including route planning and data analysis functions.	☐
Fleet tracking	Software to display the location of vehicles, such as trucks or taxis.	☐
Full body scanners	Security system used at airports to produce a digital image of passengers 'without clothes'.	☐
GPS	System of satellites that allows a user to determine their position on Earth using a special receiver.	☐
Intelligent cars	Cars incorporating IT to improve driver safety and comfort.	☐
Package tracking	Use of RFID and a web site to show customers the location of packages awaiting delivery.	☐
Price comparison sites	Sites which aggregate price data from a variety of sources to offer customers the best deal.	☐
Real-time data collection	Data logging systems which report data as soon as it is collected.	☐
Remote vehicle disabling	Ability to disable a vehicle over a computer network if it has been stolen	☐
RFID	System of tags which contain data that can be read from a distance using radio waves.	☐
Route planning	Software to plan the optimum route between two points.	☐
Sensors	Input devices used to measure physical traits, such as sound, heat, or light.	☐
Smart cars	Cars incorporating IT to improve driver safety and comfort.	☐

Notes

11-Education

11 Education



1-1 Programme	Scheme in which every student is given their own laptop.	☐
Acceptable use policy	Policy that sets out what users are and are not allowed to do with IT systems.	☐
Accessibility	Hardware and software features to help disabled users operate computer systems.	☐
Anti-plagiarism software	Software to detect plagiarised work by searching the Internet and previous work samples.	☐
Asynchronous learning	In a tele-learning environment, learning which does not require the teacher and student to be online at the same time.	☐
Black list	List of banned web sites in a filtering system.	☐
Blended learning	Mix of traditional teaching techniques and e-learning techniques.	☐
Children's Internet Protection Act	US law requiring Internet filtering in US most schools and libraries.	☐
CIPA	US law requiring Internet filtering in US most schools and libraries.	☐
Cyber-bullying	Use of IT such as social networks to harass or bully individuals.	☐
Dictation software	Use of software to convert spoken words into text.	☐
e-Book	An electronic book, presented as a document on a computer or an e-book reader.	☐
e-Book reader	Portable device used to download and read e-books.	☐
e-Learning	Electronic learning. The use of IT to teach and learn.	☐
EDI	Process of transferring data between systems in a standard format that both can understand.	☐
Edutainment	Entertainment software designed to have an educational aspect.	☐
Electronic Data Interchange	Process of transferring data between systems in a standard format that both can understand.	☐
Electronic textbooks	E-books designed to replace traditional paper textbooks for teaching and learning	☐
Equality of access	The use of technology to ensure that everybody is able to access resources, regardless of problems such as physical disabilities.	☐
False negative	When a system incorrectly rejects an action instead of accepting it.	☐
False positive	When a system incorrectly accepts an action instead of rejecting it.	☐
Flat classrooms	Use of IT to connect classrooms with other classrooms around the world	☐
Forums	Online areas where users can post messages to each other.	☐

Intellectual property	Refers to creations of the mind – non-physical property such as photographs, music, stories, and films.	☐
Interactive whiteboard	A computer input and output device often used in classrooms. Displays computer graphics as output and allows input using special pens or a finger.	☐
m-Learning	Mobile learning. Use of mobile devices to teach and learn.	☐
Motion controllers	Input devices which are moved through the air to control a computer system.	☐
Multimedia	Use of images, audio, text, and video data together.	☐
Onscreen keyboard	Keyboard which is displayed on screen and controlled by clicking on buttons with the mouse or a touch screen.	☐
Open courseware	Educational material which is released for free use and distribution.	☐
Open textbooks	Textbooks whose content is freely available online for reading, copying, and often editing.	☐
Plagiarism	Use of another user's work without proper credit or citation being given.	☐
Podcast	Sound files recorded and uploaded to a web server, usually in episodic format.	☐
Predictive text	System that predicts the word being typed based on the letters already typed.	☐
Profile privacy settings	Settings in social networks and other systems to control how a user's data is shared with others.	☐
Projector	Output device used to display computer graphics on a wall or board.	☐
Reference software	Electronic encyclopedia software containing articles, images, videos, and other reference items.	☐
School information system	Database system for storing and managing information about a school, its students, and staff.	☐
Serious games	Games designed to teach players about an issue.	☐
Speech synthesis	Accessibility feature for users with eyesight problems, reads text from the computer out loud.	☐
Synchronous learning	In a tele-learning environment, learning which does requires the teacher and student to be online at the same time.	☐
Tele-learning	Learning that occurs when the teacher and students are in separate geographical locations.	☐
Touch sensitive input	Input devices which allows a screen to be controlled with fingers rather than using a mouse or a keyboard.	☐
Video conferencing	Use of video cameras and microphones to conduct a conversation over a network.	☐
VLE	A content management system (CMS) which allows teachers to upload lessons, worksheets, quizzes, and other class material, to be displayed on a web page.	☐
Web 2.0	Refers to web pages which allow user interaction and collaboration.	☐
Virtual Learning Environment	A content management system (CMS) which allows teachers to upload lessons, worksheets, quizzes, and other class material, to be displayed on a web page.	☐

Notes

This image shows a full page of white paper with horizontal dotted lines. The lines are evenly spaced and run across the width of the page, providing a guide for handwriting practice. There are no margins, text, or other markings on the page.

12-Environment

12 Environment



ADC	Device for sampling analog data and producing a digital sample of it.	☐
Analog data	Continuous data which can be measured, such as the temperature in the room.	☐
Analog to digital converter	Device for sampling analog data and producing a digital sample of it.	☐
BAN	Environmental campaign group that works to reduce the problems caused by e-waste.	☐
Basel Action Network	Environmental campaign group that works to reduce the problems caused by e-waste.	☐
Basel Convention, The	Environmental agreement regarding e-waste.	☐
Blade servers	Server design which is modular, allowing systems to be rapidly expanded and reducing power consumption.	☐
Continuous data	Analog data which can be measured, such as the temperature in the room.	☐
CRT	Old, large TV style computer monitors.	☐
Data centres	Large warehouses of computers that host hundreds or thousands of gigabytes of data.	☐
Data layers	Layers of information added to a Geographical Information System.	☐
Data logging	Automatic recording of data using sensors.	☐
Digital data	Discrete data which can be counted.	☐
Digital footprint	An individual's effect on the environment due to e-waste.	☐
Digital divide	The idea that money, language, education, or infrastructure creates a gap between those who have access to information technologies and those who do not.	☐
Digitisation	The process of converting analog data into digital computer data.	☐
Discrete data	Discrete data which can be counted.	☐
Donation schemes	Schemes used to find additional uses for obsolete computer equipment to extend it's useful life.	☐
e-Waste	Discarded electronic equipment that is either broken or obsolete.	☐
Electronic waste	Discarded electronic equipment that is either broken or obsolete.	☐
Geographical Information System	A system which allows layers of data to be placed on map data to visualise and analyse it. For example, crime rate figures can be layered on a map of a city.	☐
Geotagged	Adding tags to data (such as an image) to identify the location in which it was created.	☐
GIS	A system which allows layers of data to be placed on map data to visualise and analyse it. For example, crime rate figures can be layered on a map of a city.	☐

Global Positioning System	System of satellites that allows a user to determine their position on Earth using a special receiver.	☐
GPS	System of satellites that allows a user to determine their position on Earth using a special receiver.	☐
GPS receiver	Part of the GPS system which calculates its distance from satellites in space.	☐
Laser imaging	Remote imaging method that users laser light, often used by satellites.	☐
LCD	Newer style "flat screen" monitors.	☐
LEDC	Countries to which electronic waste is often shipped for unsafe recycling and disposal.	☐
Less Economically Developed Country	Countries to which electronic waste is often shipped for unsafe recycling and disposal.	☐
Lidar	Remote imaging method that users laser light, often used by satellites.	☐
Life cycle (hardware)	For computer hardware, the period of time from its manufacture, through its use, until its eventual disposal.	☐
Location based service	Any service (e.g. web page content) which varies according to the user's location.	☐
MEDC	Countries which are often a significant source of electronic waste.	☐
More Economically Developed Country	Countries which are often a significant source of electronic waste.	☐
Planned obsolescence	Idea that IT equipment is designed to have a short life expectancy before failing or becoming obsolete.	☐
Power settings	Operating systems to affect the power consumption of a computer.	☐
Radar	Remote imaging method used by satellites.	☐
Recycling	The process of reclaiming valuable elements from waste electronic equipment, often done unsafely in developing countries.	☐
Reduce	The 'R' concerned with preventing e-waste problems by producing less waste equipment and using fewer harmful chemicals.	☐
Redundant systems	System which will take over the role of a primary system if it fails.	☐
Remote sensing	Techniques used by satellites to image the Earth.	☐
Refurbish	The 'R' concerned with finding additional uses for equipment which is obsolete but not broken.	☐
Reuse	The 'R' concerned with finding additional uses for equipment which is obsolete but not broken.	☐
RoHS	A law which limits the harmful chemicals that manufacturers are allowed to put into their electronic equipment.	☐
Reduction of Harmful Substances	A law which limits the harmful chemicals that manufacturers are allowed to put into their electronic equipment.	☐

Sample precision	During digitisation, the number of bits used to represent each sample.	☐
Sample rate	During digitisation, the number of samples taken per second.	☐
Sampling	The process of converting analog data into digital computer data.	☐
SAT NAV	Portable GPS receiver device often used in vehicles.	☐
Satellite imaging	The use of sensors on satellites to measure or record information, usually about the Earth.	☐
Satellite navigation system	Portable device that uses GPS to plot the user's position.	☐
Sensors	Input devices used to measure physical traits, such as sound, heat, or light.	☐
Sonar	Remote imaging method used by satellites.	☐
Speed throttling	Reducing a processor's clock speed to save power when not in use.	☐
Take-back scheme	Scheme operated by IT manufacturers to accept customers' old hardware for recycling at its end of life.	☐
Virtual globe	A 3D software map of the Earth, usually with layers of information added, similar to a GIS.	☐
Virtual machines	A software implementation of a computer system, allowing one physical computer to run several "virtual computers", each with their own independent operating system and application software.	☐
Virtualisation	The process of using several virtual machines running on one computer to replace several separate physical computers.	☐
Visualisation	Producing graphs or animations based on computer data, to help understand and analyse it.	☐
WEEE	A European law which requires electronic equipment manufacturers to accept back their equipment for recycling at its end of life.	☐

Notes

13-Health



Addiction	Compulsive use of a computer system that can lead to negative effects, including health problems. A growing problem!	☐
Carpel Tunnel Syndrome	A health problem causing pain in the wrist, often associated with overuse or incorrect of a computer system.	☐
Centralised database	database in which all data is stored in one centralised location.	☐
Clinical decision support system	Expert system for medical diagnosis	☐
Computer model	Mathematical representation of the real world using computer software.	☐
CTS	A health problem causing pain in the wrist, often associated with overuse or incorrect of a computer system.	☐
Cybernetics	Integration of IT into the human body.	☐
e-Prescriptions	Electronic prescriptions.	☐
EDI	Process of transferring data between systems in a standard format that both can understand.	☐
HER	Computerised medical records, often stored on a centralised server.	☐
Electronic Data Interchange	Process of transferring data between systems in a standard format that both can understand.	☐
Electronic Health Records	Computerised medical records, often stored on a centralised server.	☐
Electronic Medical Records	Computerised medical records, often stored on a centralised server.	☐
EMR	Computerised medical records, often stored on a centralised server.	☐
Ergonomics	Meaning a system design for user comfort.	☐
Human Genome Project	An online project designed to centrally store information about the human genome.	☐
Medical expert system	Expert system for medical diagnosis support.	☐
Myoelectric control	Control of IT using electrical impulses from the body	☐
Neural control	Control of IT using electrical impulses from the brain	☐
Opt-in	System in which users must explicitly decide to participate.	☐
Opt-out	System in which users must explicitly decide not to participate.	☐
Personal Health Record	Electronic health records which are stored on the patient's own computer system.	☐
PHR	Electronic health records which are stored on the patient's own computer system.	☐

Prosthetics	Devices used to replace a user's arms or legs if they have been amputated. Increasing becoming computerised.	☐
Remote monitoring	Use of IT to monitor the health of patients over a large distance.	☐
Repetitive Strain Injury	Injury caused by overuse or incorrect use of a computer, which can affect the wrists, arms, back, or shoulders.	☐
RSI	Injury caused by overuse or incorrect use of a computer, which can affect the wrists, arms, back, or shoulders.	☐
Smart cards	Credit card sized card containing a microchip for data storage and processing.	☐
Store-and-forward telemedicine	Telemedicine using techniques such as email, which do not operate in real time.	☐
Telehealth	Using IT to perform medical consultations when the doctor and patient are in geographically separate locations.	☐
Telemedicine	Using IT to perform medical consultations when the doctor and patient are in geographically separate locations.	☐
Telesurgery	Using IT to perform surgery on a patient in a geographically separate location from the doctor.	☐
Virtual reality	A virtual world which the user views using a special headset, and may participate in using specialist input devices.	☐
VPN	Allows a secure private connection over a public network, using an encrypted 'tunnel'. For example, a remote computer can securely connect to a LAN, as though it were physically connected.	☐

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This image shows a full page of a worksheet designed for handwriting practice. It consists of approximately 20 horizontal rows. Each row is defined by two parallel dotted lines, creating a series of uniform gaps for writing. The entire page is otherwise blank, with no text or other markings.

14-Home & Leisure



3D modelling	Software often used in the digital restoration of historic sites or artefacts.	☐
Augmented reality	Overlapping layers of computer data with images of the real world.	☐
Avatar	Representation of a person in a virtual environment.	☐
Biometrics	Use of fingerprints, retina scans, or other body features as an authentication mechanism.	☐
CAVE	Form of virtual reality which projects images on the walls surrounding a user.	☐
Cave Automated Virtual Environment	Form of virtual reality which projects images on the walls surrounding a user.	☐
Citizen journalism	News reporting by everyday citizens using mobile technology, rather than traditional media.	☐
Copyright infringement	Illegally copying or distributing copyrighted material.	☐
Digital restoration	The process of using digital versions of historic works or places and software to “rebuild” them to their previous states.	☐
Digital Rights Management	Software which restricts the actions a user can perform with a file, such as copying or printing.	☐
Digital radio	Upgraded version of radio signals which offers higher quality than analog television.	☐
Digital television	Upgraded version of television signals which offers higher quality than analog television.	☐
Digitisation	The process of converting analog data into digital computer data.	☐
DRM	Software which restricts the actions a user can perform with a file, such as copying or printing.	☐
e-Book	An electronic book, presented as a document on a computer or an e-book reader.	☐
Electronic ink	Technology used in e-book readers to improve display quality.	☐
Entertainment Software Rating Board	Organisation that provides content ratings for computer games.	☐
ESRB	Organisation that provides content ratings for computer games.	☐
Ground penetrating radar	Specialist imaging hardware used to detect and visualise objects buried underground.	☐
HDTV	Television images that have a resolution up to 1920 x 1080.	☐
High Definition Television	Television images that have a resolution up to 1920 x 1080.	☐
Home automation	Home which uses technology to improve its efficiency, security, and comfort, by automating many aspects.	☐
Home Theatre PC	Computer with multimedia capabilities designed specifically for watching television and films.	☐

HTPC	Computer with multimedia capabilities designed specifically for watching television and films.	☐
IPTV	Systems which allows television images and sound to be delivered over the Internet.	☐
Laser scanning	Technique used to build 3D computer models of real world locations.	☐
Massively Multiplayer Online Game	Games played by connecting to a central server and interacting with other players in a virtual world.	☐
Massively Multiplayer Online Role Playing Game	Games played by connecting to a central server and interacting with other players in a virtual world.	☐
MMOG	Games played by connecting to a central server and interacting with other players in a virtual world.	☐
MMORPG	Games played by connecting to a central server and interacting with other players in a virtual world.	☐
Motion Picture Association of America	Film industry group that works to reduce illegal copying of films.	☐
MPAA	Film industry group that works to reduce illegal copying of films.	☐
News aggregator	Software which fetches news headlines from a variety of sources for display in one location.	☐
P2P	Network in which all computers are equal and there are no centralised servers.	☐
Pan European Game Information	Organisation that provides content ratings for computer games in Europe.	☐
Paywall	System to prevent access to a web site's content unless the user pays a subscription fee.	☐
Peer-to-Peer	Network in which all computers are equal and there are no centralised servers.	☐
PEGI	Organisation that provides content ratings for computer games in Europe.	☐
Piracy	Term for the illegal copying or downloading of copyrighted material.	☐
Recording Industry Association of America	Music industry group that works to reduce illegal copying of music.	☐
RFID	System of tags which contain data that can be read from a distance using radio waves.	☐
RIAA	Music industry group that works to reduce illegal copying of music.	☐
Smart home	Home which uses technology to improve its efficiency, security, and comfort, by automating many aspects.	☐
Smart meters	Systems which measure a household's consumption of water or resources, producing statistics that can be used to improve efficiency.	☐
Social news	News sites which rank news stories based on user ratings.	☐

15-Politics & Government



ANPR	Software which processes video camera data to read vehicle number plates and compare it to those stored in a database.	☐
Augmented reality	Overlapping layers of computer data with images of the real world.	☐
Automatic Number Plate Recognition	Software which processes video camera data to read vehicle number plates and compare it to those stored in a database.	☐
Battlefield network	Large scale network gathering information from soldiers, vehicles, and maps to provide an overall view of the battlefield.	☐
Biometrics	Use of fingerprints, retina scans, or other body features as an authentication mechanism.	☐
Black boxes	Closed system whose internal operation cannot be inspected.	☐
Black list	List of banned web sites in a filtering system.	☐
Children Internet Protection Act (CIPA)	US Law requiring schools to filter Internet content to protect children.	☐
Content rating	System whereby web site content is categorised so that filters can block it if necessary.	☐
Cyber-terrorism	Using computer hacking techniques to commit acts of terrorism.	☐
Cyber-warfare	Using computer hacking techniques to commit acts of war.	☐
Denial of Service attack	Flooding a computer system with data so that it cannot respond to genuine users.	☐
Digital Millennium Copyright Act	Law designed to improve copyright protection for media companies, and make it illegal to bypass copy protection systems such as DRM.	☐
Direct Recording Electronic	Voting machines where users cast votes by touching a screen.	☐
DMCA	Law designed to improve copyright protection for media companies, and make it illegal to bypass copy protection systems such as DRM.	☐
DNA database	A database, often national, that contains DNA samples taken from people arrested by the police.	☐
DNS	System for translating domain names into IP addresses.	☐
DNS Poisoning	Technique used by criminals to alter DNS records and drive users to fake sites, to committing phishing.	☐
DRE voting machine	A type of electronic voting machine that allows the user to vote by selecting the candidates name using a touchscreen.	☐
Drone	An unmanned aerial vehicle often used by the military for surveillance operations.	☐
e-Passport	Passport with a microchip containing biometric features, and RFID technology to transmit these to immigration control.	☐
e-Petition	An online petition that can be signed by people supporting a cause.	☐

Electronic voting	Any use of IT to count or cast votes in an election.	☐
False negative	When a system incorrectly rejects an action instead of accepting it.	☐
False positive	When a system incorrectly accepts an action instead of rejecting it.	☐
Filter	Software which blocks some Internet content, based on a series of rules or lists of content.	☐
Firewall	Software or hardware used to control data entering and leaving a network.	☐
Future warrior	Information technology designed to improve a soldier's understanding of the battlefield around him.	☐
GPS	System of satellites that allows a user to determine their position on Earth using a special receiver.	☐
Internet voting	Systems which allows users to vote over the Internet.	☐
Internet Watch Foundation	Organisation that works with British ISPs to block access to illegal content on the Internet.	☐
IP address	Unique address assigned to every computer on a network.	☐
IWF	Organisation that works with British ISPs to block access to illegal content on the Internet.	☐
Keyword filter	Filter that blocks web pages containing specified key words.	☐
Micro-payments	Online donations collected in small amounts, but which add up when contributed by thousands of users.	☐
Mission creep	When the use of an IT system extends beyond its original purpose.	☐
Mixed reality	Combination of virtual reality and real life training.	☐
Online voting	Casting votes over the Internet.	☐
Open government	Use of IT to publish data about government operations, improving transparency.	☐
Optical scanning electronic voting system	Voting machines which count paper ballots cast by voters.	☐
PNDRE	Voting machines where users cast votes over a network like the Internet.	☐
Precision guided weapons	Weapons that use IT to improve their accuracy or effectiveness.	☐
Public Network Direct Recording Electronic	Voting machines where users cast votes over a network like the Internet.	☐
RFID	System of tags which contain data that can be read from a distance using radio waves.	☐
Simulation	Based on computer models, gives users experience of events such as flying a plane.	☐
Smart weapons	Weapons that use IT to improve their accuracy or effectiveness.	☐
Software verification	The use of experts to examine the source code of a program to check that it works correctly.	☐

Tactile feedback	Output from a computer system in the form of force, movement, or resistance.	☐
UAV	An unmanned aerial vehicle often used by the military for surveillance operations.	☐
Unmanned Aerial Vehicle	An unmanned aerial vehicle often used by the military for surveillance operations.	☐
URL	Describes the location of an item, such as a web page, on the Internet.	☐
Virtual reality	A virtual world which the user views using a special headset, and may participate in using specialist input devices.	☐
Virtual reality headset	Primary output device used by a virtual reality system.	☐
Voter Verified Paper Audit Trails	An electronic voting system that produces a paper receipt of the vote cast, allowing a recount if necessary.	☐
VVPAT	An electronic voting system that produces a paper receipt of the vote cast, allowing a recount if necessary.	☐
Weighted filter	A filter which considers the words in a page as well as the context in which they appear.	☐
White list	List of allowed web sites in a filtering system.	☐
Wired soldiers	Information technology designed to improve a soldier's understanding of the battlefield around him.	☐

Notes

16-IT Systems in Organizations

16-1 Development Personnel



Information system (IS) managers	Person responsible for all IT purchases, deployments, and systems within an organisation.	☐
Analyst	In project development, person who documents the current system, finding its problems and areas for improvement	☐
Database administrator	The person in an organisation who is responsible for setting up, maintaining, and monitoring the organisation's database(s).	☐
Development manager	In project development, person who oversees programmers as they create the system specified in the design.	☐
Network manager	The person responsible for the installation, configuration, and monitoring of an organisation's network.	☐
Programmer	A person who writes computer programs by following a design document.	☐
Support staff	Staff who train users and help them with problems as they occur	☐

16-2 Analysis Stage



Business case	Analysis of the benefits and problems of a proposed IT project.	☐
Client	Person or organisation who commissions an IT project.	☐
Constraints	Limitations within which an IT system must work.	☐
CP	Longest (slowest) path through a project's development, as determined by using a PERT chart.	☐
Critical Path	Longest (slowest) path through a project's development, as determined by using a PERT chart.	☐
Data collection	Used to find information about an existing system during the development of a new system.	☐
End-user	Person who will use an IT project once it is finished.	☐
Feasibility study	Examination of a proposed system to see if its creation is possible.	☐
Functional requirements	Specific features and functions that a proposed IT system must have.	☐
Gantt chart	Used to chart the stages of a planned IT project and the people responsible for each stage.	☐
Milestones	Key points during project development, such as the completion of a stage.	☐
Non-functional requirements	Conditions that a proposed IT system must meet, such as working on certain hardware or giving results within a certain time.	☐
Organisational IT policies	Policies governing the appropriate use of IT, data integrity, security procedures, and other aspects of IT use with an organisation.	☐

PERT chart	Charting system to show the inter-dependencies in projects.	☐
Project goals	Clear statement of the intentions of a proposed IT project.	☐
Project management methodology	Systems and techniques designed to encourage successful projects and avoid project failure.	☐
Project management software	Software to help plan, manage, and guide the process of IT project development.	☐
Project manager	Person with overall responsibility for an IT project.	☐
Project plan	Clear definition of the goals, scope, and schedule of a proposed IT project.	☐
Requirements specification	Clear list of the functional and non-functional requirements for a proposed IT project.	☐
Scope	Clear definition of the boundaries of an IT project.	☐
SWOT	Analysis method sometimes used when creating a business case.	☐
Technical documentation	Documentation intended for programmers and developers of an IT system.	☐
User documentation	Documentation intended for users of an IT system, helping them understand and use it.	☐

16-3 Design Stage



Attributes	Component of an Entity Relationship Diagram.	☐
Cardinality	Property of a relationship in an Entity Relationship Diagram.	☐
Data Flow Diagram	Shows processes in a system and the flows of data between them.	☐
Data structure	The way the data within an IT system is organised and related.	☐
DFD	Shows processes in a system and the flows of data between them.	☐
Entities	Component of an Entity Relationship Diagram.	☐
Entity relationship diagram	Shows the items of data stored in a system and the relationships between them.	☐
ERD	Shows the items of data stored in a system and the relationships between them.	☐
Outputs	During analysis, a list of the results that a system must produce.	☐
Processes	During analysis, a list of the procedures a system must implement.	☐
Prototype interface	Early version of a user interface to get feedback about its effectiveness.	☐

Relationships	The links between separate items of data.	☐
System context diagram	High level DFD of a system.	☐
User interface	The part of a system that allows a user to interact with it.	☐

16-4 Implementation Stage



Alpha testing	Initial testing of an IT system.	☐
Bugs	Errors in a computer program or system, hopefully found during testing.	☐
Capability Maturity Model Integration	Quality assurance method that describes an organisation's level of maturity.	☐
CMMI	Quality assurance method that describes an organisation's level of maturity.	☐
Frequently Asked Questions	A list of common problems that users experience, and their answers.	☐
Implementation	Stage in the SDLC where the system is created (programmed).	☐
Load testing	Testing of an IT system with the amount of work it can be expected to process in real world conditions.	☐
Online lessons	A form of training delivered online.	☐
Prototypes	An early version of a project, designed to get feedback from the client and users.	☐
Quality assurance methods	In project development, used to ensure the whole development team are following standardised best practices.	☐
Quality control processes	Processes to ensure code produced by programmers followed accepted best practices.	☐
Software testers	People who perform alpha, beta, and acceptance testing.	☐
Test plan	List of all tests and test data that should be tried with a system.	☐
Training	Ensuring that users will be able to work with a new IT system.	☐
Tutorial	A document which explains how to perform key tasks, step by step.	☐
User manual	A document which explains to users how to use a computer system.	☐

16-5 Testing Stage

Beta tester	Person who attempts to find bugs in software before it is released to customers.	☐
Beta testing	Testing of an IT system once all features have been added and only bugs need to be worked out.	☐
Bug tracking system	Used to track and manage bugs in a piece of software.	☐
Handover	Point at which the developers of a system formally pass it to the client.	☐
User acceptance testing	Tests performed by a client before formally accepting an IT system from the developers.	☐

16-6 Installation Stage

Changeover	Moving from an old system to a new IT system.	☐
Delivery	Installing a new IT system at the client's premises.	☐
Deployment	Stage in the SDLC where the system is deployed at the client's site.	☐
Direct changeover	Immediate removal of an old system and complete replacement with a new IT system.	☐
Installation	Installing a new IT system at the client's premises.	☐
Parallel running	Running the old system and the new system side by side.	☐
Phased changeover	One part of an organisation switches to a new IT system to test it, while others remain using the old system.	☐

16-7 Maintenance Stage

Adaptive maintenance	Maintenance that changes software to make it work with a new software environment.	☐
Corrective maintenance	Maintenance that fixes bugs in software.	☐
Incident escalation	Moving a problem with an IT project to a higher level if it cannot be solved.	☐
Incident management system	Used to keep track of problems and difficulties encountered in an IT system.	☐
Incident tracking system	Used to keep track of problems and difficulties encountered in an IT system.	☐
Internal support	Support for an IT system provided within an organisation.	☐
Maintenance	Alterations made to a system after it has been formally handed over.	☐

Perfective maintenance	Maintenance that changes software to incorporate new user requirements (or changed requirements).	☐
Phase out	Gradually removing an old IT system from use.	☐
Preventative maintenance	Maintenance that changes software to avoid possible future problems.	☐
Regression testing	Testing to ensuring changes to an IT system did not break any previously working functionality.	☐
Support	Staff who help users with problems they encounter while using an IT system.	☐

16-8 Development Approach & Methodologies



Acceptance testing	Testing performed by the client and users as part of the handover process.	☐
Agile development	Development method that focuses on creating small, working parts of a project at regular intervals.	☐
PMBok	Project Management Body of Knowledge. A project management methodology.	☐
PRINCE2	PRojects IN Controlled Environments 2. A project management methodology.	☐
Procurement	The act of acquiring the necessary items (software, hardware, staff) to develop an IT system.	☐
Project initiation document	Document used in PRINCE2 to describe the key features of an IT project.	☐
SSADM	Structured Systems Analysis and Design Method. A project management methodology.	☐
User acceptance testing	Testing performed by the client and users as part of the handover process.	☐
Waterfall development	Development method that focuses on completing each stage of the SDLC for the entire project before moving onto the next.	☐

16-9 Miscellaneous



Custom / bespoke software	Software created specific for an individual or organisation.	☐
Emulator	A computer program which simulates another type of computer, so that it can run programs designed for it.	☐
IDE	Set of programs used by system developers to create IT systems.	☐
Integrated Development Environment	Set of programs used by system developers to create IT systems.	☐
Legacy system	An old, out of date IT system which is still used because it is essential to an organisation.	☐

Off-the-shelf software	Software which is widely available and can be bought by anybody.	☐
SDLC	The stages in the life time of an IT system, from its first proposal, through its design and creation, to its eventual phasing out.	☐
Source code	Instructions that make up the software, entered by the programmer using a programming language.	☐
System development lifecycle	The stages in the life time of an IT system, from its first proposal, through its design and creation, to its eventual phasing out.	☐
Virtual machine	A software implementation of a computer system, allowing one physical computer to run several “virtual computers”, each with their own independent operating system and application software.	☐

Notes

This image shows a single sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

This image shows a full page of white paper with horizontal dotted lines. The lines are evenly spaced and run across the width of the page, providing a guide for handwriting practice. There are no margins, text, or other markings on the page.



17-AI & Robotics

17-1 Artificial Intelligence



AI	Creating a system that produces results comparable to human intelligence.	☐
Artificial Intelligence	Creating a system that produces results comparable to human intelligence.	☐
Artificial Neural Network	AI system that attempts to mimic the neurons and synapses in the human brain.	☐
Boolean logic	Logic in which clauses can have one of two states – such as yes or no, true or false.	☐
Brute force searching	AI technique that considers all possible solutions, looking for the best.	☐
CAPTCHA	System designed to create text that is unreadable to a computer but understandable to a person, to reduce spam.	☐
Chaining	Use of logical statements to come to a conclusion.	☐
Chinese Room, the	Thought experiment dealing with the idea of knowledge.	☐
Computational intelligence	Approach that tries to create systems that think and learn in the same way humans do.	☐
Confidence interval	Level of certainty in an answer a pattern recognition system provides.	☐
Expert system shell	Software used to create expert systems.	☐
Expert systems	Software designed to make the same decisions that a human expert would, in a given knowledge domain.	☐
Feedback loop	Use of previous answers (right or wrong) to improve the decision making process next time.	☐
Fuzzy logic	Logic in which items can have multiple values. Used in AI.	☐
Fuzzy set theory	System in which items can be partial or complete members of a set. Used in AI.	☐
Hand writing recognition	System to recognise human writing and convert it to text.	☐
Heuristics	General rules for performing a task, used to improve the perform of searching algorithms in AI applications.	☐
IF-THEN rule	Rule used by the inference engine in an expert system to describe the relationship between key concepts.	☐
Inference engine	Part of an expert system which attempts to relate the users input with knowledge stored in the knowledge base.	☐
Inference rule	Rule used by the inference engine in an expert system to describe the relationship between key concepts.	☐
Knowledge base	Area of an expert system where all facts about the knowledge domain are stored.	☐
Knowledge domain	Area of knowledge in which an expert system specialises.	☐
Knowledge engineer	Programmer responsible for entering expert knowledge into an expert system.	☐
Knowledge representation	Different techniques for representing concepts and their relationships inside a computer system.	☐

Logic	Rule used by the inference engine in an expert system to describe the relationship between key concepts.	☐
Machine learning	Technique for making a computer produce better results by learning from past experiences.	☐
Machine translation	Technique for automatically translating one human language into another.	☐
Natural language processing	Techniques for processing human languages to enable a computer to understand their meaning.	☐
Neural networks	AI technique that tries to simulate the human brain, using neurons and synapses.	☐
Pattern recognition	Computational Intelligence technique where computers are trained on examples and learn to recognise similarities between them.	☐
Searching	AI technique that considers all possible solutions, looking for the best.	☐
Set theory	Mathematical theory used in some AI techniques.	☐
Speech recognition	Computer system that can process spoken language and understand its meaning.	☐
Training data	Example data used in a pattern recognition system.	☐
Turing test	Proposed test to see if a computer is intelligent or not.	☐
User interface	Part of an expert system that accepts users inputs and presents answers.	☐

17-2 Robotics



Android	Robot designed to look like a human, with lifelike skin and other features.	☐
Autonomous	Robot which operates without human intervention.	☐
Camera	Common input device in robotics.	☐
Clamps	Common output device in robotics.	☐
Claws	Common output device in robotics.	☐
Computer vision	Techniques to let computers and robots see and understand the world around them.	☐
Heat sensor	Common input device in robotics.	☐
Humanoid	Robot designed generally like a human – bipedal, upright, and arms, and a head.	☐
Humidity sensor	Common input device in robotics.	☐
Infrared sensor	Common input device in robotics.	☐
Lasers	Common input device in robotics.	☐

Light sensor	Common input device in robotics.	☐
Lights	Common output device in robotics.	☐
Magnetism sensor	Common input device in robotics.	☐
Motors	Common output device in robotics.	☐
pH sensor	Common input device in robotics.	☐
Pressure sensor	Common input device in robotics.	☐
Proximity sensor	Common input device in robotics.	☐
Radar	Common input device in robotics.	☐
Relays	Common output device in robotics.	☐
Robot	Computerised device that performs manual or physical tasks, either autonomously or under remote control.	☐
Robotic arm	Common output device in robotics.	☐
Robotic fingers	Common output device in robotics.	☐
Sensors	Input devices used to measure physical traits, such as sound, heat, or light.	☐
Sirens	Common output device in robotics.	☐
Sound sensor	Common input device in robotics.	☐
Speakers	Common output device in robotics.	☐
Tracks	Common output device in robotics.	☐
Wheels	Common output device in robotics.	

Notes

18-ITGS (Intro)

18-1 Core

Application areas		☐
Ethical issues		☐
Ethics		☐
Information technology		☐
Social and ethical considerations		☐
Social impacts		☐
Stakeholders		☐

18-2 Strand 1

Anonymity		☐
Authenticity		☐
Compatibility		☐
Cultural diversity		☐
Cultural impact		☐
Digital citizenship		☐
Economic impact		☐
Environmental impact		☐
Equality of access		☐
Ergonomic impact		☐
Globalization		☐
Health impact		☐
Integrity		☐
Intellectual property		☐
Legal impact		☐
Policies		☐

Political impact		☐
Privacy		☐
Protocols		☐
Psychological impact		☐
Reliability		☐
Security		☐
Standards		☐
Surveillance		☐
The digital divide		☐
Unauthorised access		☐
Anonymity		☐
Authenticity		☐

18-3 Strand 2



Business and employment		☐
Education and training		☐
Environment		☐
Health		☐
Home and leisure		☐
Politics and Government		☐

18-4 Strand 3



Input		☐
Networking		☐
Output		☐
Processing		☐
Storage		☐

☒

RSS feed		☐
RSS reader		☐

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